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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,265	10/24/2003	Paula J. Armstrong	GP-301491	9074
7590	10/08/2004		EXAMINER	
LESLIE C. HODGES General Motors Corporation Legal Staff, Mail Code 482-C23-B21 P.O. Box 300 Detroit, MI 48265-3000			PANG, ROGER L	
			ART UNIT	PAPER NUMBER
			3681	
DATE MAILED: 10/08/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/693,265	ARMSTRONG ET AL. <i>4</i>	
	<b>Examiner</b> Roger L Pang	<b>Art Unit:</b> 3681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on \_\_\_\_.

2a)  This action is FINAL.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-9 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5)  Claim(s) \_\_\_\_\_ is/are allowed.  
6)  Claim(s) 1-9 is/are rejected.  
7)  Claim(s) \_\_\_\_\_ is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4-30-04.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .

5)  Notice of Informal Patent Application (PTO-152)

6)  Other: \_\_\_\_ .

## **DETAILED ACTION**

The following action is in response to application 10/693,265 filed on October 24, 2003.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Within all of the claims, the limitations of “said torque-transmitting mechanisms” are unclear. Applicant claims “one of said” mechanisms (with a respective location) and then claims “one of said” mechanisms (with another location). It is unclear whether the same mechanism can be used for both location limitations. It is suggested that applicant label the five torque-transmitting mechanisms (i.e. first, second, third, etc.) and reference them accordingly. With regard to claim 9, it is unclear how three of the torque-transmitting mechanisms can have stationary pistons. Although “stationary pistons” have been disclosed in the specification, it is unclear how they could be stationary, unless they are pistons for brakes. Claim 2 may have the same problem, however, since two of the torque-transmitting mechanisms in space 1 are brakes, this claim is proper.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5, and 9 (all as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Martyka in view of Fujikawa. With regard to claim 1, Martyka teaches a power transmission comprising: an input shaft 22, an output means 24; a first planetary gearset 26, second planetary gearset 28, and a third planetary gearset, a member of the first planetary gearset 58 being continuously connected with a member <sup>1</sup> of said third planetary gearset 74 and with said output means; another member of said first planetary gearset 54 being connected with a member of said second planetary gearset 66; another member of said second planetary gearset 58 being continuously connected with said input shaft; a further member of said second planetary gearset 64 being connected with another member of said third planetary gearset 70; a transmission housing 46 with four defines spaces (space 1 = between far left and 22; space 2 = between far right and 24; space 3 = above 50, space 4 = between 22 and 28); first, second and third torque-transmitting mechanisms located in said space 1 and some may also be disposed in space 3; a fourth torque-transmitting mechanism disposed in space 4; a fifth torque-transmitting mechanism disposed in space 2; said torque-transmitting mechanisms being engaged in combinations of two to establish six forward speed ratios and one reverse speed ratio (Fig. 2, discounting 3rd speed). Martyka does not teach of a three-section transmission housing. Fujikawa teaches a transmission with a first end wall H1, second end wall H4/H3, and an outer

housing H2 joining said walls. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Martyka to employ a sectional transmission housing in order to facilitate easier assembly. With regard to claims 2 and 9, Martyka teaches the transmission wherein: said two torque-transmitting mechanisms 40,42 disposed in said first space both have servo-mechanisms with stationary pistons (Col. 2; brakes = stationary pistons). With regard to claim 3, Martyka teaches the transmission wherein: at least three 40, 42, 24 of said torque-transmitting mechanisms are disposed within the first space. With regard to claim 5, Martyka teaches the transmission wherein: two of said torque-transmitting mechanisms 34,40 are in space 1, two 32,42 in space 3, one 36 in space 2.

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martyka in view of Fujikawa as applied to claim1 above, and further in view of Frost. With regard to claim 7, Martyka teaches of two torque-transmitting mechanisms 40,42 with friction members rotatably disposed on the housing, but lacks the teaching of an extension. Frost teaches an end wall 86 with an extension for rotatably disposing friction members 186 of brakes. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Martyka in view of Fujikawa to employ an extension in view of Frost in order to save on axial space. With regard to claim 8, Martyka teaches the transmission wherein three of said torque-transmitting mechanisms 34,40,42 are in space 1, one 32 in space 2, one 36 in space 4, but lacks the teaching of the torque-transmitting mechanism in space 2 having friction plates in space 3. Frost teaches of a torque-transmitting mechanism 192 with friction plates located above a ring gear 134. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Martyka to employ friction plates in space 3 in view of Frost, in order to save on axial space.

Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martyka in view of Fujikawa as applied to claim1 above, and further in view of Korkmaz. Martyka teaches of at least three of said torque-transmitting mechanisms 34, 40, 44 in space 1 and one 32 in space 3, but lacks the teaching of four torque-transmitting mechanisms in space 1. Korkmaz teaches a similar transmission wherein a torque-transmitting mechanism connects the planetary carrier of the first planetary gearset with the input shaft 10, wherein said torque-transmitting mechanism is positioned in space 1. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Martyka to employ a fourth torque-transmitting mechanism in space 1 (changing torque-transmitting mechanism 36 to the position of torque-transmitting mechanism 9 (of Korkmaz)) in view of Korkmaz in order to save on axial space. With regard to claim 6, Martyka teaches of at least three of said torque-transmitting mechanisms 34, 40, 44 in space 1 and one 32 in space 2, but lacks the teaching of four torque-transmitting mechanisms in space 1. Korkmaz teaches a similar transmission wherein a torque-transmitting mechanism connects the planetary carrier of the first planetary gearset with the input shaft 10, wherein said torque-transmitting mechanism is positioned in space 1. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Martyka to employ a fourth torque-transmitting mechanism in space 1 (changing torque-transmitting mechanism 36 to the position of torque-transmitting mechanism 9 (of Korkmaz)) in view of Korkmaz in order to save on axial space.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Beim, and Raghavan '360 and '745 have been cited to show a similar transmissions.

Shindo has been cited to show similar piston/clutch structures.

**FACSIMILE TRANSMISSION**

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is (703) 305-3597. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

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(Signature)

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If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger L Pang whose telephone number is 703-305-0445. The examiner can normally be reached on 5:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Roger L Pang  
Patent Examiner  
Art Unit 3681

September 27, 2004